

## Saving Seeds from Heirloom and Other Vegetables

Scientists have devised ways to remove specific genes from one plant and insert them into another. This is known as genetic engineering, and the goal is to transfer a desirable characteristic. It was inevitable that someone would apply technology to do something our ancestors have been doing for centuries.

People have always desired the “best” vegetable. When agriculture began, people chose seed from wild plants that had the characteristics they wanted. Each year they saved seed from the plants in their fields that showed these desirable traits. Because of differences in geography, taste preferences, etc. many varieties of the same vegetable came into being.

Today in many countries, and in ours a few generations back, it is/was common for gardeners to save their own seed. Some gardeners in our country continue to do this. It’s fun, easy, and there is a special feeling that comes from closing the circle, growing from seed to seed.

Gardeners save seed from open-pollinated varieties, plants that are pollinated naturally by insects or wind. Open-pollinated plants generally have characteristics that are stable and reliably reproduce similar plants the following year, as long as cross-pollination is prevented.

Hybrids are created by careful cross-pollination of two different varieties, each possessing desirable characteristics. Seeds from hybrids rarely “come true” – produce plants like the parents – so they are not

suitable for saving. Hybrids are often tough, vigorous, uniform, productive plants. They are bred for traits important to commercial growers: uniform time of maturity, ability to withstand machine harvest, and good post-harvest storage life. Taste is not usually the highest priority. These characteristics may be the opposite of those that gardeners consider desirable.

### **Saving Seed**

First, begin with an open-pollinated crop. Herb seeds, including cilantro (called coriander in seed form); dill, basil, and parsley are easy to save. Don’t worry about the next generation, there are no hybrids to cause concern. Common open-pollinated vegetable crops include peas, beans, lettuce, and radishes.

Today, many types of tomatoes, squash, cucumbers, broccoli, spinach, beets, carrots, and corn are hybrids. Often hybrids have the designation F1 with their name. Seed catalogs and seed packets usually have this information in the crop descriptions. If the description doesn’t indicate that it’s a hybrid, you can assume the plant is open-pollinated.

Another factor to consider is whether there is a chance that cross-pollination between two kinds of the same crop might give you seed that doesn’t come true. There is a chance that the cross will produce something wonderful, but the odds are pretty poor. You will be safe with self-pollinated vegetables, but wind- and bee-pollinated ones are risky unless you grow only one cultivar of that crop and your neighbors don’t garden.

Crops that normally cross pollinate include all members of the brassica family: cabbage, broccoli, mustards, collards, kale, kohlrabi, cauliflower, turnips, radishes, and Brussels sprouts; the cucurbit family: zucchini and other summer squash, winter squash, pumpkins, cucumbers, and melons; carrots, parsnips, beets, chard, spinach, and corn.

When saving seed, select a strong, healthy plant and allow the plant or fruit to fully mature. If it is a fruiting plant, let the fruit get over-ripe, then pick and remove seeds. For slimy seeds, such as tomatoes, squeeze the seedy juice into a jar and add a little water. Let it sit for a few days until the gunk looks really awful, then scrape off the moldy pulp, rinse off the juice, and dry the seed on a paper towel.

Allow peas, beans, and corn to turn yellow and begin to dry on the vine or stalk. (This is often difficult with the Northwest's rainy fall weather.) Pick out the seeds and let them dry in a dark, warm (not hot), well-ventilated area.

For lettuce, spinach, herbs, and brassica crops, the seed heads form after the blossoms die. (Some crops such as carrot, cabbage, and beets are biennial and don't flower until the second year. They must be left through winter to get seed.) As the seed ripens, it usually gets darker. Cut it and hang it to dry. Sometimes it's best to put the stalks, pods, or shelled seeds in a paper or cloth bag to contain the seed and also allow air circulation.

When the seeds are dry, wrap them in paper or envelopes, label them, and store in a dark, dry, cool location. For each 10 degrees you reduce the temperature down to freezing, you double the life of the seed.

### **Heritage Seed**

You may want to grow a heritage variety someone else has developed. By growing and saving seed from old varieties, we preserve a wonderful genetic diversity. You'll be able to choose from 150 different kinds of tomatoes, rather than only a dozen or so. Besides, who can resist "Lazy Wife" pole beans, "Deer Tongue" or Grandpa Admires" lettuce, or "Radiator Charlie's Mortgage Lifter" tomatoes!

Many varieties of vegetables grown by our ancestors have been lost because no one was willing to save their seed. We are quite concerned about loss of biodiversity in our ecosystem, and justifiably so, but not about loss of biodiversity in our own gardens.

Check the internet. There are a number of seed companies that specialize in heirloom seeds, and there are seed exchanges as well.

### **Develop a strain of your own!**

Buy seed of an open-pollinated cultivar and grow out the whole packet. You will notice some subtle variety within plants. Decide what is important to you and allow the plants with those characteristics produce seed. Look for sweetness, early maturity, size, productivity, color, and resistance to insects and disease. After a few years of focusing on some of these qualities, you will have your own improved variety of the vegetable. Seeds from plants that have been growing in the same area for many years will have characteristics necessary to withstand local conditions, such as drought or heavy soils.